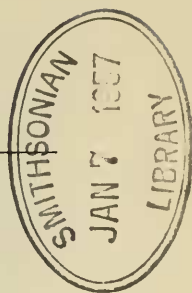


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTON

TWO NEW GERBILS FROM LIBYA

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The new gerbils described below were obtained as the result of field work sponsored by the Office of Naval Research on contract Nonr 1808(00) and are now part of the collections of the United States National Museum.

All measurements are in millimeters and capitalized color terms are from Ridgway "Color Standards and Color Nomenclature" 1912.

Gerbillus pyramidum aureus subsp. nov.

Type.—Adult male, skin and skull, U. S. National Museum no. 302078, from 12 km. W Zliten, Tripolitania Province, Libya. Obtained 22 October 1955 by H. W. Setzer, original no. 2624.

Specimens examined.—Fourteen, from: 12 km. W Zliten, Tripolitania, 13; 5 km. W El Agheila, Cyrenaica, 1.

Diagnosis.—Upper parts near Sayal Brown, purest on sides, flanks and cheeks. Mystacial area, supraorbital, postorbital and postauricular spots, lips, entire underparts, and dorsal surfaces of hands and feet, pure white. Tail obscurely bicolored; dorsal color of tail same as color of back. Tail with black pencil for about distal one-fifth. Dorsal color of back extends on antero-external portion of pinna; postero-external portion of pinna brownish. Skull small, upper tooththrow relatively long, auditory bullae relatively large; anterior palatine foramina long, rostrum narrow.

Measurements.—The averages and extremes of eight males and five females from the type locality, with the measurements of the type in brackets, are respectively: Total length 237.4 (229-249), 224.0 (221-230), [249]; length of tail 132.8 (127-144), 125.6 (124-129), [144]; length of hind foot 30.6 (30-31), 30.4 (30-31), [31]; length of ear from notch 14.9 (13-18), 13.4 (13-14), [15]; occipitonasal length of skull 30.5 (29.9-31.6), 29.5 (29.2-29.9), [30.4]; length of auditory bullae 10.9 (10.7-11.2), 10.9 (10.7-11.1), [10.7]; crown length of upper tooththrow 4.1 (4.0-4.3), 4.1 (3.8-4.2), [4.1]; greatest breadth across zygomatic arches 16.0 (15.7-16.6), 15.9 (15.7-16.1), [15.9]; least interorbital breadth 5.8 (5.5-6.1), 5.7 (5.6-5.8), [6.1]; breadth of rostrum at level of antorbital foramen 3.2 (3.1-3.3), 3.05 (3.0-3.1), [3.2]; greatest length of nasals 11.9 (11.5-12.1), 10.9 (10.6-11.6), [12.1].

Comparisons.—In comparison with *Gerbillus pyramidum pyramidum* as known from the Nile Valley, Egypt, *G. p. aureus* differs in darker ears, and the black pencil on the distal one-fifth of the tail. In size,

aureus is somewhat smaller, especially the length of the hind foot. The skull of *aureus*, in animals of comparable age, is smaller, more rounded dorsally, narrower across the rostrum, anterior palatine foramina relatively as well as actually longer, auditory bullae relatively larger, pterygoid fossae smaller, palate narrower, and upper cheekteeth relatively larger.

From *Gerbillus pyramidum tarabuli* as known from Sebha, Fezzan Province, Libya, *G. p. aureus* differs in somewhat darker color and somewhat smaller size in all external measurements. The skull is smaller in all respects, especially in breadth and length; the upper toothrows are parallel instead of divergent anteriorly; auditory bullae relatively larger, and the posterior extension of the bony palate is markedly less.

Remarks.—This new subspecies of gerbil appears to be most closely allied to *G. p. tarabuli* but differs conspicuously in the darker dorsal color and in the darker colored ears.

The type series was taken in a consolidated sandy area along a large wadi. The vegetative cover was predominantly castor beans of which some were found stored in two burrows excavated. No other seeds or plant remains were found stored in the burrows.

Gerbillus pyramidum favillus subsp. nov.

Type.—Adult male, skin and skull, U. S. National Museum no. 302088, from 2 km. E Sirte, Tripolitania Province, Libya. Obtained 24 October 1955 by H. W. Setzer, original no. 2637.

Specimens examined.—Twenty, from: 2 km E. Sirte, Tripolitania, 12; 5 km. E Sirte, Tripolitania, 8.

Diagnosis.—Upper parts near Pinkish Cinnamon, purest on sides, flanks, and cheeks. Mystacial area, supraorbital and postauricular spots, entire underparts (including underside of tail), and dorsal surfaces of hands and feet, pure white. Dorsal surface of tail somewhat lighter in color than back; tail tufted with brownish hairs for about distal one-fifth. Antero-external half of ear same color as back; postero-external surface nearly naked and pale in color. Skull medium in size, dorsal surface relatively flat, rostrum narrow, upper cheekteeth relatively large, auditory bullae relatively large, pterygoid fossae small and roofed over with bone, anterior palatine foramina long and relatively wide, zygomatic arches bowed medially at middle.

Measurements.—Averages and extremes for seven males and thirteen females from the above localities, with the measurements of the type in brackets are respectively: Total length 226.1 (216-240), 220.1 (210-236), [240]; length of tail 125.7 (119-135), 119.3 (110-132), [135]; length of hind foot 30.4 (30-31), 30.3 (30-31), [31]; length of ear from notch 14.4 (13-15), 13.6 (13-15), [15]; occipitonasal length of skull 29.7 (29.3-30.5), 29.4 (28.4-30.1), [30.5]; length of auditory bullae 10.5 (10.3-10.8), 10.5 (10.3-10.9), [10.8]; crown length of upper toothrow 4.14 (4.1-4.2), 4.2 (4.0-4.3), [4.1]; greatest breadth across zygomatic arches 15.5 (15.1-16.6), 15.7 (15.2-16.3), [16.6]; least interorbital breadth 5.8 (5.5-6.0), 6.0 (5.7-6.2), [5.9]; breadth of rostrum at level of antorbital foramen 3.2 (3.0-3.3), 3.2 (3.1-3.4), [3.3]; greatest length of nasals 11.4 (11.0-12.0), 11.3 (10.4-13.1), [12.0].

Comparisons.—From *Gerbillus pyramidum pyramidum*, *G. p. favillus*

differs in lighter color, shorter tail and shorter hind foot. The skull, in animals of comparable age, is smaller, the upper tooththrows are slightly bowed laterally rather than parallel, the auditory bullae are less inflated, the pterygoid fossae are smaller, the zygomatic arches are bowed medially at the middle rather than straight or slightly bowed laterally, and the dorsal surface of the skull is flatter.

G. p. favillus differs from *Gerbillus pyramidum tarabuli* in somewhat paler color, smaller body size, shorter tail and shorter hind foot. The skull is smaller, the dorsal surface is flatter, the rostrum is narrower, the zygomatic arches bow medially at the middle, the auditory bullae are smaller, the pterygoid fossae are smaller, the upper tooththrows are slightly bowed laterally rather than divergent anteriorly, and the upper cheek-teeth are relatively larger.

Compared with *Gerbillus pyramidum aureus*, *G. p. favillus* is markedly lighter in color and has a brownish rather than black brush on the tail. In size the two subspecies are comparable. The skulls are of about the same size, but in *favillus* the upper tooththrows are bowed laterally instead of straight, the auditory bullae are less inflated ventrally, the zygomatic arches are bowed medially in the middle rather than straight or slightly bowed laterally, and the dorsal surface of the skull is markedly flatter.

Remarks.—This gerbil was taken in loose coastal dunes where the vegetation had been heavily eaten by domestic animals. It seems that gerbils belonging to the species *pyramidum* are different on the different types of substrate one encounters in Libya. The animals here referred to *tarabuli* came from areas resembling hardpan while animals referred to *aureus* came from rather consolidated sand areas which were heavily vegetated. There is, however, still too little data available from which to draw conclusions in regard to habitat preference of the various subspecies found in Libya.